

REMARKS

Initially, Applicants acknowledge with appreciation the telephonic interview held on March 10, 2006 between Applicants' representative and the Examiner in order to discuss the pending claims and the cited prior art.

By this Amendment, claims 1 and 21 are amended and new claim 23 is added. Claims 1-3, 5, 7, 8, 10-12 and 20-23 are presented for further examination.

Independent claims 1 and 21 have been amended to clarify that the process system comprises separate gas flow passages that independently supply process gas to a center area and an end area of the chamber. Support for the changes to claims 1 and 21 can be found, *inter alia*, at page 14, lines 10-21 and in Figure 5 of the specification. Claim 1 has further been amended to correct a minor typographical error. New claim 23 requires that the gas flow rates into the chamber are independently controlled. Support for new claim 23 can be found at page 14, lines 19-21 of the specification.

Favorable consideration and allowance are respectfully requested for claims 1-3, 5, 7, 8, 10-12 and 20-23 in view of the foregoing proposed amendments and the following remarks.

The rejection of claims 1-3, 5, 10 and 20 under 35 U.S.C. § 102(b) over Dhindsa (US 6,245,192) is respectfully traversed.

As amended, claim 1 requires, in pertinent part, that separate first and second gas flow passages supply gas via through holes to the center area and the

end area, respectively. Because the center area and the edge area of the hollow portion are separated by a partition member, the process gas from one gas flow passage does not substantially mix with the process gas from another gas flow passage until the process gas passes through the showerhead (i.e., enters the chamber).

In contrast, Dhindsa teaches that gas from each gas supply enters an open plenum between baffle plates or between the bottom baffle plate and the showerhead. Referring to column 5, lines 37-55 and Figures 4-6 of Dhindsa, gas from a first gas supply can flow through openings 80 to openings 82 in lower baffle plate 56B. Gas from a second gas supply can flow through openings 84 in lower baffle plate 56B. Thus, in the gas distribution apparatus of Dhindsa, gas from both the first and second gas supplies mixes in the channels 88 in the underside of the lower baffle plate above the top surface of the showerhead. Because Dhindsa does not teach or suggest supplying gas to a center area and to an end area via mutually independent and separate gas flow passages, claims 1-3, 5, 10 and 20 are patentable over Dhindsa. Reconsideration and withdrawal of the rejection are respectfully requested.

The rejection of claims 21 and 22 under 35 U.S.C. § 102(b) over Fujikawa (US 5,595,606) is respectfully traversed.

Claim 21, as amended, relates to a process system wherein a first gas flow passage supplies process gas only into a center area of a chamber, and a second

gas flow passage supplies process gas only into an end area of a chamber. The claimed structure is not taught or suggested by Fujikawa.

Fujikawa teaches that a raw gas passage 52 and a reduction gas passage 54 are formed in showerhead 50 independent of each other. However, the raw gas passage and the reduction gas passage of Fujikawa each supply gas to both a center area and an edge area of the chamber. As shown, for example, in Figure 13, passage portions 52c for the raw gas and passage portions 54c for the reduction gas are alternately arranged in both of X and Y directions so as to form a matrix format (see also Figure 6 and column 10, lines 40-44). Thus, Fujikawa fails to teach or suggest a first gas flow passage that supplies process gas only into a center area of the chamber, and a second gas flow passage that supplies process gas only into an end area of the chamber. Accordingly, withdrawal of the rejection is respectfully requested.

The rejection of claims 7, 8, 11, 12, 21 and 22 under 35 U.S.C. § 103(a) over Dhindsa in view of Fujikawa is respectfully traversed.

With respect to the rejection of claims 7, 8, 11 and 12, Applicants respectfully submit that Fujikawa fails to cure the deficiencies of Dhindsa with respect to the subject matter recited in claim 1. Accordingly, Claims 7, 8, 11 and 12 are deemed patentable. Likewise, with respect to the rejection of claims 21 and 22, Dhindsa fails to cure the deficiencies of Fujikawa. In the gas distribution system of Dhindsa, gas from both the first and second gas supplies

60, 64 mixes in the channels 88 and flows though a third set of openings 90 in the showerhead. Withdrawal of the rejection is respectfully requested.

In view of the foregoing, it is submitted that the present application is in condition for allowance and such action is earnestly solicited.

If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned at (202) 624-2995 would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket #101246.52582US).

Respectfully submitted,

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